

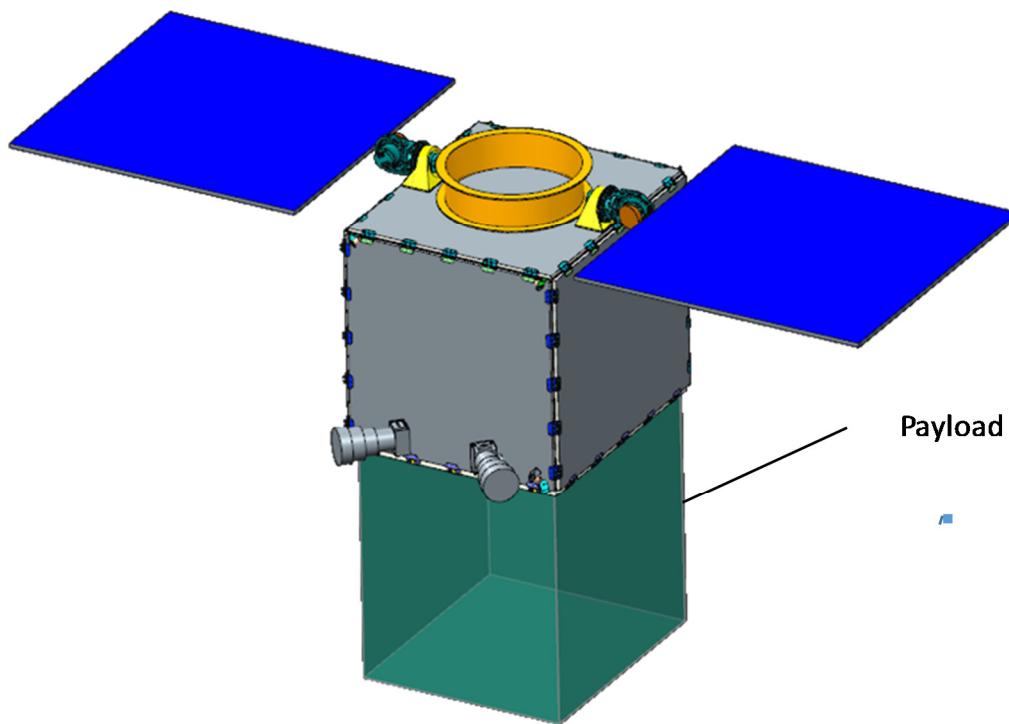


## LM 400 Payload Accommodation

### INTRODUCTION

Lockheed Martin Space encourages payload providers and mission planners to create missions optimized for—or at least compatible with—our versatile and highly capable LM 400 LEO/GEO Small Satellite platform. Table 1 provides a summary of typical interfaces and performance capabilities provided by the LM 400 platform. These specifications serve as a guide to those interested in flying on this bus. An actual compatibility assessment is best done through an exchange of detailed information and interface requirements, as the LM 400 is quite flexible in configuration and capability. Figure 1 shows a nominal payload volume for an externally mounted payload with internal electronics, if required. In many cases, specific interface adaptations are easily accommodated.

Figure 1: LM 400 Payload Mounting



**Table 1. LM 400 Hosted Payload Accommodation**

Typical Hosted Payload Resource Allocations, Performance Characteristics and Interface Requirements	
<b>Maximum Hosted Payload Resource Allocations</b>	
Payload Mass Limit	175 kg
Payload Power	500 peak, 250 Watt orbital average
Payload Volume (contiguous)	1 cubic meter
<b>Key Platform Performance Characteristics</b>	
<b>Attitude Control (Including Stationkeeping Maneuvers)</b>	
Attitude Control System	3-axis stabilized
Orbital Maneuvering	Up to 600 m/s
Pointing Knowledge, $3\sigma$	0.0027 deg
Total Pointing Accuracy, $3\sigma$	<0.01 deg per Axis
<b>Mission Parameters</b>	
Orbit	LEO or GEO
Duration	5-7 years
<b>Nominal Program Schedule</b>	24-30 months
<b>Key Platform Interface Characteristics</b>	
<b>Command and Data Handling Interfaces</b>	
Standard Payload Data Bus	MIL-STD-1553B data bus
Alternate Serial Bus Interface(s)	RS-422 derived bi-directional serial bus
Telemetry Types	-32 V, 28V
Payload Downlink	Active analog, passive analog, discrete, serial (bidirectional serial bus), serial (1553), software 16 Bit / 32 Bit words, and memory dumps X-band or Ka-band downlink.
<b>Power</b>	
Main Bus Voltage (Standard)	28v +/-6v